

## Independent Electricity System Operator (IESO) – Network Control Mississauga, Ontario

The IMO is the administering body of the electricity market in Ontario and is responsible for connecting all the participants in the electricity wholesale market and oversees the security of the control grid and electrical trading market, specifically monitors the 115 kV lines.

IMO contracted Applied Electronics to design, supply and integrate a new customized wallboard system that offered a viable and cost effective solution to meet its need for displaying more information and in different formats without cluttering the grid diagram while allowing more flexibility in functionality. The Clarkson Control Room, a 24/7 operation, remained completely operational during the wall replacement project. Noise and dust barriers were installed to minimize the disruption to the operators and temporary large screen displays were integrated for application monitoring purposes. The 2x10 array of 100" (diagonal) DLP rear projection display system presents vital information such as available electrical capacity, consumer demand, trading prices, weather information, and an overall grid representation. The display system is not susceptible to image burn, convergence errors or image degradation over time and allowed multiple local and network-based software applications to be tiled and visually manipulated on the wall simultaneously in conjunction with real-time video signals, enabling quick visual reference and reaction in the event of an emergency.

The new display wall was commissioned in June of 2003, providing the control room staff with new capabilities and increased efficiency and reaction time. With the August 2003 blackout and the new system in operation, the IMO was able to have the problem sectors pinpointed on the grid within a few hours and restoration dispatched immediately.

